

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 7:47 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 838 Const Calendar Day: 332 Date: 02-May-2013 Thursday

Inspector Name: Bruce, Matt Title: Transportation Engineer

Inspection Type: Intermittent

Shift Hours: 07:00 am 03:30 pm Break: 00:30 Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex

Approved Date:

Status: Submit

**04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge****Weather****Temperature 7 AM** 60 - 70 **12 PM** 70 - 80 **4PM** 80 - 90**Precipitation** 0.00" **Condition** SunnyWorking Day ☐ If no, explain:**Diary:**

Dispute

Work description.

- Measured the amount of rotation and translation of the Temporary Bearings and S1/2 Shear Keys per the request of TY-Lin designer Nhan Vo.

The first round of measurements began at 6:45am and was completed by 7:25am under sunny skies with an ambient temperature of 55F to 57F. It should be noted that the time of sunrise today was 6:12am. However the angle of the sun was not above the OBG when measurements were taken. The average steel temperature on the OBG top plate was 43F to 48F.

As in previous days the bipod was used to establish vertical change due to the thermal cycles on the OBG at all four Temporary Bearings and the S1/2 Shear Keys. Also translation in the longitudinal direction of these components was monitored with a laser level. The following is the initial measurements taken this morning:

Temp. Brg / Shear Key (mm)	Corners	Dist. from top of bipod pole clamp (mm)	Translation
---	-----	-----	-----
West TB1	SE / SW	226 / 361	3
/ 0 S1	WCL / ECL	458 / 400	0
0 TB2	NE / NW	231 / 332	
0 TB3	SW / SE	323 / 209	
East / 0 S2	ECL / WCL	386 / 451	3
0 TB4	NW / NE	351 / 277	

The last column denotes the location of the initial mark (zero) placed to monitor longitudinal translation of



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the temporary bearing or permanent Shear Key. Finally the SMART level was placed on the south side of permanent bearings B1 and B2 as another check for rotation at Pier E2. The measurement for both B1/2 bearings was 0.8 degrees clockwise looking north from Pier E2 centerline.

- Attended weekly SAS Safety Tailgate meeting at 8:00am.

The second round of measurements began at 1:30pm and was completed at 2:15pm under sunny skies with an uniform ambient temperature of 83F. At this time of the day the sun had been well above the OBG for a few hours. As a result the average steel temperature on the OBG top plate was 127F.

The following is the measurements taken in the afternoon on a hot day:

Temp. Brg / Shear Key (mm)	Corners	Dist. from top of bipod pole clamp (mm)	Translation
---	-----	-----	-----
West TB1	SE / SW	223 / 364	4
1 East S1	WCL / ECL	462 / 398	7East /
West TB2	NE / NW	230 / 335	3
West TB3	SW / SE	327 / 209	2
/ 5 East S2	ECL / WCL	385 / 455	6 East
East TB4	NW / NE	352 / 275	2

Using the SMART level to check rotation the measurement for B1/2 bearings was 0.95 and 1.0 degrees clockwise looking north from Pier E2 centerline respectively.

- Began to process/analyze the measurements taken above and in previous days.

Attachment



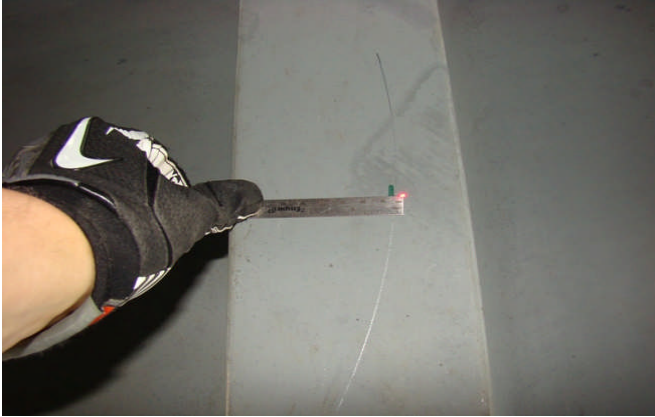
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Movement of the S1 upper housing 7mm East in relation to the lower housing after the OBG steel heated up.



Steel temperature of the OBG top steel plate of 48F measured at EPP126CL after the first round of measurements.